

DigitalMedia™ Presentation System 300 w/Acoustic Echo Cancellation

- > High-Definition multimedia system switcher, mic mixer, audio DSP, amplifier, and control system
- > Integrated DigitalMedia™ switcher featuring DM 8G+® technology
- > HDBaseT® Certified — Enables direct connection to third-party HDBaseT devices
- > Matrix signal routing for up to 7 simultaneous sources and 4 displays
- > Handles HDMI®, DVI, DisplayPort Multimode, HDBaseT and SPDIF digital sources
- > Handles RGB, composite, S-Video, component, and stereo audio analog sources
- > Features auto-detecting, auto-switching inputs for all types of video and audio sources
- > Includes built-in 6-channel gated microphone mixing w/DSP
- > Includes full-bandwidth, fully-adaptive acoustic echo cancellation on each mic input
- > Allows direct integration with one or two teleconferencing codecs
- > Affords versatile audio signal mixing and routing to 7 separate outputs
- > Allows audio-follow-video or breakaway switching for all inputs
- > Enables HDMI audio signal extraction and embedding
- > Provides 3 stereo analog outputs with independent DSP per output
- > Features built-in 40 Watt amplifier, selectable for 8 Ohm stereo or 70/100 Volt mono operation
- > Multi-channel PCM, Dolby®, and DTS® audio signals can be routed to the HDMI and DM 8G+ outputs
- > DigitalMedia 8G+® connectivity affords single-wire CAT5e interface for remote sources and displays^[2]
- > Furnishes Power over DM® or HDBaseT for PoDM/PoH-powered devices^[3]
- > QuickSwitch HD® technology manages HDCP keys for fast, reliable switching
- > Auto-Locking™ technology achieves rapid switching between disparate sources
- > Performs automatic AV signal format management via EDID
- > Scaler options provide discrete image optimization for each display device
- > Integrated Ethernet switch provides a single-point LAN connection
- > Private Network Mode — requires just two IP addresses for the complete system
- > 2-Series control system provides fully-programmable device control
- > Supports Crestron® touch screens, keypads, and wireless remotes
- > XPanel with Smart Graphics™ computer and Web based control
- > iPhone®, iPad®, and Android™ control app support
- > Crestron Fusion® Enterprise Management Software support
- > SNMP support
- > Provides easy setup and diagnostics via front panel or software
- > Internal universal power supply for worldwide compatibility
- > 3-space 19-inch rack-mountable



The DMPS-300-C-AEC from Crestron® is a complete, high-definition presentation control and signal routing solution for boardrooms and videoconference rooms. Integrating the control system, multimedia matrix switcher, mic mixer with AEC, audio DSP, and amplifier all into one 3-space rack mount package, the DMPS-300-C-AEC affords extensive signal routing flexibility and high-performance signal processing without the need for separate components. Auto-configuring inputs enable plug-and-play compatibility with a wide range of digital and analog sources. Built-in DigitalMedia™ and HDBaseT® connectivity affords a streamlined wiring solution for interfacing with remote AV sources, computers, and display devices.

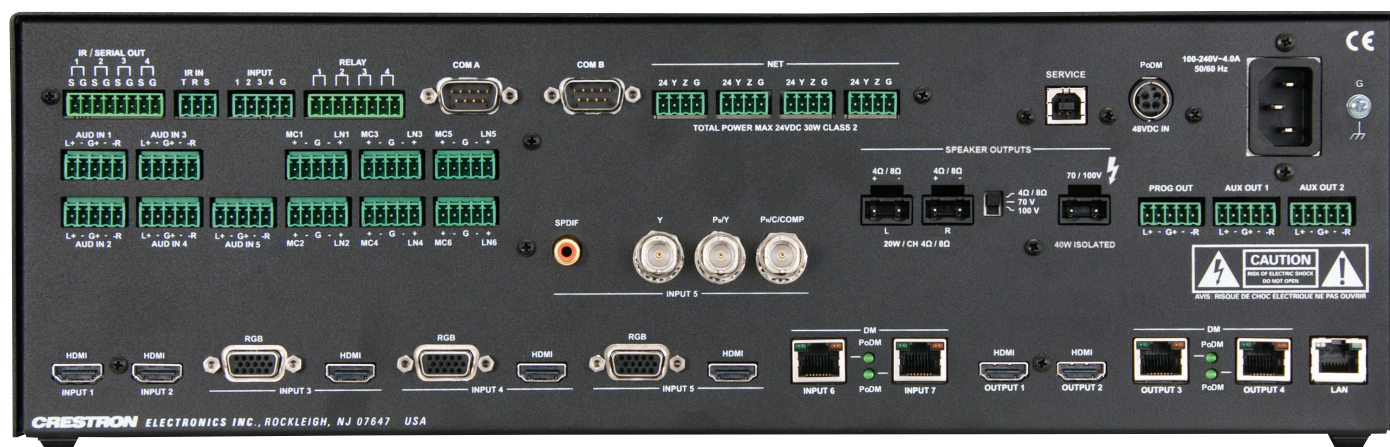
The DMPS-300-C-AEC is an enhanced version of the [DMPS-300-C](#) featuring full-bandwidth acoustic echo cancellation on each of its six mic inputs. It integrates directly with up to two audio or video codecs for a total teleconferencing system solution.

HD System Switcher

The DMPS-300-C-AEC provides high-performance routing of numerous digital and analog sources to up to four separate projectors, flat panel displays, codecs, touch screens, and other devices. Connectivity is provided for up to five HDMI® sources^[1], or other combinations of HDMI, RGB, SPDIF, analog audio, and analog video sources (plus additional remote sources via DM 8G+® or HDBaseT). Input auto-detection and auto-switching eliminates the need to configure the inputs — simply connect your source and the DMPS-300-C-AEC selects the right audio and video combination. Built-in matrix switching allows routing of seven simultaneous sources to four different digital AV devices and three additional analog audio components.

Flexible Audio Routing

The HDMI, SPDIF, and analog audio inputs may be configured to follow their associated video inputs, or switched independently. In fact, the audio from any HDMI source can be extracted from the digital stream and converted to analog to feed an outboard processor, mixer, or codec, with the return signal feeding back through any analog input, which can be embedded with any video source to form a new HDMI output. Routing of multi-channel PCM, Dolby®, and DTS® audio sources is supported through the HDMI and DM 8G+ outputs. The HDMI, SPDIF, and analog audio inputs



DMPS-300-C-AEC – Rear View

include adjustable input compensation to accommodate a wide range of signals and maintain consistent volume levels when switching between sources.

DigitalMedia 8G+®

Integrated DM 8G+ inputs and outputs afford the ultimate in simplicity, providing a true one-wire interface for remote sources and display devices. Easily add up to two DM 8G+ transmitters to provide connectivity for HD AV sources and computers at a table or lectern. Connect two DM 8G+ receivers to provide independent signal routing and control for two separate projectors or flat panel displays. Supporting wire lengths up to 330 feet (100 meters), DM 8G+ can also provide an ideal interface to a central DigitalMedia switcher as part of a larger multi-room or room-combining system.

DM 8G+ requires just one CAT5e wire run to each location, transporting high-definition video, audio, and Ethernet for each device without compromise. Power over DM (PoDM) is supplied over the same CAT5e connection, providing a centralized power source for all compatible transmitters and receivers.^[2,3]

HDBaseT® Certified

Crestron DigitalMedia 8G+ technology is designed using HDBaseT Alliance specifications, ensuring interoperability with third-party HDBaseT products. Via DM 8G+, the DMPS-300-C-AEC can be connected directly to any HDBaseT compliant source or display device without requiring a DM® transmitter or receiver.

6-Channel Microphone Mixer

For a complete presentation or conferencing solution, the DMPS-300-C-AEC includes built-in mixing and processing for six microphones. Each mic input provides selectable mic or line level with 60 dB of gain adjustment, switchable 48V phantom power, fully-adjustable gating, compression, limiting, and 4-band EQ. Sophisticated matrix mixing allows for a completely different stereo mix of all 6 microphones at each of the DMPS-300-C-AEC's seven outputs.

Acoustic Echo Cancellation

High-performance adaptive AEC on each mic input enables the DMPS-300-C-AEC to be connected directly to audio and video codecs to form a complete teleconferencing system solution. Low-latency, full-bandwidth performance affords highly-effective echo cancellation with natural sound quality. AEC is employed independently per microphone, with a fast convergence rate of 80 dB per second and tail lengths up to 200 ms, allowing the DMPS-300-C-AEC to handle any typical small to medium sized room with ease.

Expanded signal routing and audio processing in the DMPS-300-C-AEC allows one or two codecs to be connected to any of the seven source inputs, and either (or both) of the aux outputs. Dual codec support allows both codecs to be used simultaneously, even allowing the signal from one codec to be fed to the other for a fully inclusive teleconferencing experience. Plus, any local presentation source can be mixed with the microphones and routed to the codecs, allowing far end participants to experience the full presentation without any distracting echo.

Professional Audio DSP

Each analog audio output on the DMPS-300-C-AEC includes its own digital signal processor, allowing each output to be optimized to feed a power amplifier, codec, recorder, or assistive listening system. In addition to real-time adjustable volume, bass, treble, and mute controls, each DSP provides 10-band graphic equalization, 2-band parametric equalization, and 85 ms speaker delay adjustment. Hardware relay muting on each output helps prevent "thumping" on power up.

An additional dedicated DSP is included to process the AEC reference signal inside the DMPS-300-C-AEC, allowing its EQ and volume level to be set to track that of the main program output feeding the room speakers. In some situations, this can reduce the demand on the AEC's adaptive filter for even more transparent performance.

Built-in Amplifier

Its built-in 40-watt amplifier allows the DMPS-300-C-AEC to directly drive a pair of stereo speakers, or a string of 70 or 100 Volt ceiling speakers. Fed by the main "Program" output, the internal amplifier benefits fully from the

onboard DSP. For larger applications, Crestron AMP-Series power amplifiers may be added, providing a complete solution for driving separate program and speech speakers, or any multi-zone loudspeaker system.

EDID Format Management

The DMPS-300-C-AEC allows for management of the EDID (Extended Display Identification Data) information that passes between the display devices and input sources in the system. Using [Crestron Toolbox™](#) software, the format and resolution capabilities of each device can be assessed, allowing the installer to configure EDID signals appropriately for the most desirable and predictable behavior.

A Scaler for Every Display

Through a distributed scaler approach, the DMPS-300-C-AEC affords a very flexible and user-friendly solution for handling multiple disparate display devices and video codecs. Employing discrete outboard scalers like the [HD-SCALER^{\[4\]}](#) and [DM-RMC-SCALER-C^{\[4\]}](#), the DMPS-300-C-AEC allows an independent high-performance scaler to be installed at every display device and in front of each codec, ensuring an optimal image on every screen no matter what sources are selected.

QuickSwitch HD® Technology

Handling high-definition digital media means handling HDCP (High-bandwidth Digital Content Protection), the encryption scheme used by content providers to protect their DVDs, Blu-ray™ discs, and broadcast signals against unauthorized copying. Viewing HDCP encrypted content requires a source device to “authenticate” each display and signal processor in the system and issue it a “key” before delivering an output signal.

Using a conventional HDMI or DVI switcher, it is common to experience a complete loss of signal for up to 15 seconds during the authentication process each time a new source or display is selected anywhere in the system. Also, every source device has a limited number of keys available, so connect too many displays and the source will simply stop outputting a signal without warning.

Crestron QuickSwitch HD manages the keys for every HDCP-compliant device in the system, maintaining continuous authentication for each device to ensure fast, reliable routing of any source to any number of display devices.

Auto-Locking™ Technology

Crestron Auto-Locking Technology enables super fast signal switching by instantaneously configuring every device in the signal path, including DM transmitters, DM receivers, and scalers, as soon as the signal hits the first device. Whether switching between sources or TV channels, Auto-Locking significantly reduces the time it takes each device to sense the new signal and configure itself to handle the changes, virtually eliminating any noticeable gap while switching.

Built-in Ethernet Switch

In addition to transporting digital video and audio, the DigitalMedia 8G+ ports on the DMPS-300-C-AEC can also extend Ethernet out to each display and source device, providing high-speed connectivity for each

room device that requires a LAN connection. Ethernet is also utilized internally by the Crestron control bus to manage each transmitter and receiver and provide device control.

Private Network Mode

To streamline its implementation on a corporate or university LAN, the DMPS-300-C-AEC employs Private Network Mode to provide a single-point connection for the complete system. Using Private Network Mode, the DMPS-300-C-AEC requires just one IP address for the complete DM network, plus one additional IP address for the built-in control processor.

Integrated Control System

Its built-in 2-Series control system enables the DMPS-300-C-AEC to provide complete, customizable control of every AV device, as well as room lighting, window shades, and projection screens, without requiring a separate control processor. The DMPS-300-C-AEC supports the full line of Crestron [touch screens](#), keypads, and wireless remotes for a user experience custom tailored to the specific requirements of each end-user. Support for [Crestron control apps](#) and [Crestron Fusion®](#) Enterprise Management Software delivers the industry's most powerful platform for remotely controlling and managing multiple rooms using computers and mobile devices.

CEC Embedded Device Control

The primary objective of every Crestron system is to enable precisely the control desired for a seamless user experience. In addition to conventional IR, RS-232, and Ethernet device control, the DMPS-300-C-AEC can provide an additional alternative by harnessing the CEC (Consumer Electronics Control) signal embedded in HDMI. The DMPS-300-C-AEC provides a gateway for controlling many devices right through their HDMI connections, potentially eliminating the need for any dedicated control wires or IR emitters. Through proper CEC signal management, the DMPS-300-C-AEC allows you to take control of each device as you like.

Easy Setup

Every step of the DMPS-300-C-AEC setup process is designed to be quick and easy using its front panel or Crestron Toolbox software, configuring inputs and outputs automatically while letting the installer make intelligent design decisions along the way. Out of the box, the DMPS-300-C-AEC front panel supports basic signal routing for easy testing and troubleshooting during installation. The front panel label strips can be customized using Crestron Engraver software or standard 3/8” tape labels, allowing for the clear designation of each input and output. Inputs and outputs may also be designated by name through the software to appear on the LCD display.

For additional DMPS-300-C-AEC Facts and Features, please refer to Crestron Online Help [Answer ID 5147](#). You must be logged in as an Authorized Crestron Dealer or Partner to access this link.

SPECIFICATIONS

Operating System

Crestron® 2-Series; real-time, preemptive, multi-threaded/multitasking kernel; FAT32 file system with long names

Memory

SDRAM: 32 MB

NVRAM: 256 KB

Flash: 16 MB

Communications

Ethernet: 10/100/1000 Mbps; auto-switching; auto-negotiating; auto-discovery; full/half duplex; TCP/IP; UDP/IP; CIP; DHCP; Private Network Mode; SSL; SNMP; IPv4; RSTP; SMTP e-mail client; Web Server; installer setup via Crestron Toolbox™

Cresnet: Cresnet® master mode

USB: USB service port for computer console, USB HID signal routing over DM

RS-232: 2-way device control and monitoring up to 115.2k baud with hardware and software handshaking

IR/Serial: 1-way device control via infrared up to 1.2 MHz or serial TTL/RS-232 (0-5 Volts) up to 115.2k baud; supports CNXRMIRD IR Receiver^[4]

DigitalMedia: DM 8G+®, HDCP, EDID, CEC, PoDM, Ethernet

HDBaseT®: HDCP, EDID, PoH, Ethernet

HDMI®: HDMI, HDCP, EDID, CEC

NOTE: Supports management of HDCP and EDID; supports management of CEC between the connected HDMI devices and the control system

Video

Switcher: Auto-detecting multi-format digital/analog source inputs, 7x4 matrix switcher, HDMI and DM 8G+ outputs, QuickSwitch HD® technology

Input Signal Types: HDMI (Inputs 1-5), RGB^[5] (Inputs 3-5), composite/S-Video/component (Input 5), DM 8G+ and HDBaseT (Inputs 6 & 7)

Output Signal Types: HDMI (Outputs 1 & 2), DM 8G+ and HDBaseT (Outputs 3 & 4)

Formats: DM 8G+, HDBaseT, & HDMI w/Deep Color & 3D^[6], DVI^[1], Display-Port Multimode^[1], HDCP content protection support, HD up to 1080i/1080p, computer up to UXGA/WUXGA, RGBHV, RGBS, RGSB, YPbPr, Y/C, NTSC, PAL

Input Resolutions, HDMI & HDBaseT, Progressive: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 852x480@60Hz, 854x480@60Hz, 1024x768@60Hz, 1024x852@60Hz, 1024x1024@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1365x1024@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@24Hz (1080p24), 1920x1080@25Hz (1080p25), 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1080@24Hz, 2048x1152@60Hz, plus any other resolution allowed by HDMI up to 165MHz pixel clock

Input Resolutions, HDMI & HDBaseT, Interlaced: 720x480@30Hz (480i), 720x576@25Hz (576i), 1920x1080@25Hz (1080i25), 1920x1080@30Hz

(1080i30), plus any other resolution allowed by HDMI up to 165MHz pixel clock

Input Resolutions, RGB: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 1024x768@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1152@60Hz

Input Resolutions, Component: 480i, 576i, 480p, 576p, 720p50, 720p60, 1080p24, 1080i25 (1125 lines), 1080i30, 1080p30, 1080p50 (1125 lines), 1080p60

Input Resolutions, Composite and S-Video: 480i, 576i

Output Resolutions: Matched to inputs

Analog-To-Digital Conversion: 10-bit 165 MHz per each of 3 channels

RGB Source Image Adjustments:

Brightness: 0% to 50%

Contrast: -50% to +50%

Fine Phase: -16 to +15

X Position: -100 to +100

Y Position: -10 to +10

RGB Gains: -50 to +50, separately adjustable for Red, Green, and Blue

YPbPr, Y/C, or Composite Source Image Adjustments:

Brightness: 0% to 50%

Contrast: -50% to +50%

Saturation: -50% to +50%

Hue: -50% to +50%

Audio

Switcher/Mixer: 6-channel gated mic mixer w/DSP and AEC, auto-detecting multi-format digital/analog source inputs, DigitalMedia 8G+ inputs (HDBaseT compatible), 7x14 stereo source switcher, 7x4 multi-channel source switcher, analog and HDMI outputs, DM 8G+ outputs (HDBaseT compatible), independent 6-ch mic + source mixer per output, independent stereo DSP per analog output, dedicated AEC reference mixer and DSP, integrated power amplifier, digital audio pass-through mode

Typical of 6 microphone input channels:

Input Signal Types: Mono analog mic or line level

Analog-To-Digital Conversion: 24-bit 48 kHz

Phantom Power: Enable/Disable per channel

Gain: 0 to +60 dB Gain adjustment, plus Mute

Delay: 0.0 to 85.3 ms

EQ Center Frequencies: 160, 500, 1.2k, 3k Hz

EQ Gain: ±12.0 dB per band

Gating Level (Threshold): -80 to 0 dB

Gating Depth (Attenuation): -80 to 0 dB

Gating Attack: 1 to 250 ms

Gating Decay (Release): 1 to 1000 ms

Compression Level (Threshold): -80 to 0 dB

Compression Ratio: 1:1 to 10:1

Compression Attack: 1 to 250 ms

Compression Release: 1 to 1000 ms

Compression Curve: Hard or soft knee

Limiting Level (Threshold): -80 to 0 dB
Limiting Attack: 1 to 250 ms
Limiting Release: 1 to 1000 ms
Limiting Curve: Hard or soft knee
AEC: Enable/Disable
AEC High-Pass Filter: Enable/Disable at 80 Hz
AEC Double-Talk Suppression: 0.0 to -50.0 dB
AEC Noise Cancellation: 0.0 to -50.0 dB
AEC Automatic Gain Control: 0.0 to -50.0 dB, plus disable
AEC Bandwidth: 20 Hz to 24 kHz
AEC Convergence Rate: 80 dB/sec
AEC Tail Length: 200 ms

Typical of 7 source input channels:

Input Signal Types: HDMI or DisplayPort Multimode^[1] (Inputs 1-5), analog 2-channel (Inputs 1-5), S/PDIF (Input 5), DM 8G+/HDBaseT (Inputs 6 & 7)
Formats, Analog: Stereo 2-Channel
Formats, HDMI & DM: Dolby Digital®, Dolby Digital EX, DTS®, DTS-ES, DTS 96/24, up to 8ch PCM
Formats, SPDIF: 2ch PCM
Analog-To-Digital Conversion: 24-bit 48 kHz
Input Compensation: ±10.0 dB

Typical of 3 analog line outputs w/DSP:

Output Signal Type/Format: Stereo 2-Channel
Digital-To-Analog Conversion: 24-bit 48 kHz
Mic 1 – 6: -80 to +10 dB Level adjustment range, plus Mute and Pan
Mics Master: -80 to +10 dB Level adjustment range, plus Mute
Source: -80 to +10 dB Level adjustment range, plus Mute and Balance
Codec 1 – 2: -80 to +10 dB Level adjustment range, plus Mute and Balance (Codec 1 available at Program Out and Aux 2 Out only, Codec 2 available at Program Out and Aux 1 Out only)
Master Volume: -80 to +10 dB Level adjustment range, plus Mute
Mixer Presets: 1 thru 5
Bass: ±12.0 dB
Treble: ±12.0 dB
Equalization: 10-band graphic + 2-band parametric
GEQ Center Frequencies: 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz
GEQ Gain: ±12.0 dB per band
GEQ Presets: 1 thru 10
PEQ Center Frequencies: 5 to 24000 Hz per band
PEQ Gain: -36.0 to +24.0 dB per band
PEQ Bandwidth: 0.02 to 3.50 octaves per band
PEQ Types: Peaking EQ, High Pass, Low Pass, High Shelf, Low Shelf, Notch
PEQ Presets: 1 thru 5
Delay: 0.0 to 85.3 ms
Frequency Response: 20Hz to 20kHz ±0.5 dB (digital source);
20Hz to 20kHz ±0.5 dB (analog line source);
20Hz to 20kHz ±0.7 dB (microphone source)
S/N Ratio: >108 dB (digital source), 1 kHz, A-weighted;
>103 dB (analog line source), 1 kHz, A-weighted

THD+N: <0.002% (digital source), 20 Hz to 20 kHz;
<0.005% (analog line source), 20 Hz to 20 kHz;
<0.05% (microphone source), 20 Hz to 20 kHz

Stereo Separation: >108 dB (digital source);
>103 dB (analog source)

Channel Separation: >103 dB

AEC reference output (internal):

Source: -80 to +10 dB Level adjustment range, plus Mute and Balance
Codec 1 – 2: -80 to +10 dB Level adjustment range, plus Mute and Balance
Master Volume: -80 to +10 dB Level adjustment range, plus Mute
Mixer Presets: 1 thru 5
Bass: ±12.0 dB
Treble: ±12.0 dB
Equalization: 10-band graphic + 2-band parametric
GEQ Center Frequencies: 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz
GEQ Gain: ±12.0 dB per band
GEQ Presets: 1 thru 10
PEQ Center Frequencies: 5 to 24000 Hz per band
PEQ Gain: -36.0 to +24.0 dB per band
PEQ Bandwidth: 0.02 to 3.50 octaves per band
PEQ Types: Peaking EQ, High Pass, Low Pass, High Shelf, Low Shelf, Notch
PEQ Presets: 1 thru 5

Typical of 4 HDMI & DM outputs:

Output Signal Types: HDMI (Outputs 1 & 2), DM 8G+ and HDBaseT (Outputs 3 & 4)
Formats: Dolby Digital, Dolby Digital EX, DTS, DTS-ES, DTS 96/24, up to 8ch PCM
Mic 1 – 6: -80 to +10 dB Level adjustment range, plus Mute and Pan^[7]
Mics Master: -80 to +10 dB Level adjustment range, plus Mute^[7]
Left/Right (Source): -80 to +10 dB Level adjustment range, separately adjustable for Left and Right, plus Mute^[7]
Master Volume: -80 to +10 dB Level adjustment range, plus Mute^[7]
Mixer Presets: 1 thru 5
Frequency Response: 20Hz to 20kHz ±0.5 dB (digital source);
20Hz to 20kHz ±0.5 dB (analog line source);
20Hz to 20kHz ±0.7 dB (microphone source)
S/N Ratio: >108 dB (digital source), 1kHz, A-weighted;
>103 dB (analog line source), 1kHz, A-weighted
THD+N: <0.002% (digital source), 20 Hz to 20 kHz;
<0.005% (analog line source), 20 Hz to 20 kHz;
<0.05% (microphone source), 20 Hz to 20 kHz
Stereo Separation: >108 dB (digital source);
>103 dB (analog source)
Channel Separation: >108 dB (digital source);
>103 dB (analog source)

Stereo Amplified Output (same signal as Program output):

Output Power, 4/8 Ω : 20 Watts RMS per channel at 8 Ohms, 4 Ohms tolerant

Output Power, 70/100V: 40 Watts RMS

Frequency Response: 20 Hz to 20 kHz ± 1 dB @ 20 Watts into 8 Ohms;
100 Hz to 20 kHz ± 2.5 dB @ 70 or 100 Volts

S/N Ratio: 98 dB @ 20 Watts into 8 Ohms, 1 kHz, A-weighted;
96 dB @ 20 Watts in 4 Ohms, 1 kHz, A-weighted

THD+N: <0.1% (1 kHz) @ 20 Watts into 4 or 8 Ohms
<0.7% (20 Hz to 20 kHz), @ 20 Watts into 4 or 8 Ohms

Stereo Separation: >65 dB @ 20 Watts, 1 kHz

Connectors – Audio/Video Inputs

HDMI INPUT 1 – 5: (5) 19-pin Type A HDMI female;

Digital video/audio inputs;

Signal Types: HDMI, DVI, or DisplayPort Multimode^[1,6]

RGB INPUT 3 – 5: (3) DB15HD female, analog RGB/video inputs;

Signal Types: RGBHV, component, S-Video, or composite^[5];

Formats: RGBHV, RGBS, RGsB, YPbPr, Y/C, NTSC or PAL;

Input Level: 0.5 to 1.5 Vp-p with built-in DC restoration;

Input Impedance: 75 Ohms nominal;

Sync Detection: RGBHV, RGBS, RGsB, YPbPr;

Sync Input Level: 3 to 5 Vp-p;

Sync Input Impedance: 2.2k Ohms;

Note: RGB Inputs 3-5 and HDMI Inputs 3-5 are mutually exclusive; HDMI overrides RGB when using the auto-switching feature

Y, PB/Y, PR/C/COMP INPUT 5: (3) BNC female comprising (1) auto-sensing multi-format analog video input;

Signal Types: Component, S-Video, or composite;

Formats: YPbPr, Y/C, NTSC or PAL;

Input Level: 1 Vp-p nominal;

Input Impedance: 75 Ohms nominal;

Note: Video Input 5, RGB Input 5, and HDMI Input 5 are mutually exclusive; HDMI and RGB override Video when using the auto-switching feature

SPDIF INPUT 5: (1) RCA female, S/PDIF coaxial digital audio input;

Input Impedance: 75 Ohms;

Note: SPDIF Input 5 and HDMI Input 5 are mutually exclusive; HDMI overrides SPDIF when using the auto-switching feature

AUD IN 1 – 5: (5) 5-pin 3.5mm detachable terminal blocks;

Balanced/unbalanced stereo line-level analog audio inputs;

Input Impedance: 24k Ohms balanced/unbalanced;

Maximum Input Level: 4 Vrms balanced, 2 Vrms unbalanced;

Note: Analog Audio Inputs 1-5, SPDIF Input 5, and HDMI Inputs 1-5 are mutually exclusive; HDMI and SPDIF override Analog Audio when using the auto-switching feature

DM INPUT 6 – 7: (2) 8-pin RJ45 female, shielded;

DM 8G+ inputs, HDBaseT compliant;

PoDM and PoH PSE (Power Sourcing Equipment) ports^[3];

Connect to DM 8G+ outputs of DM transmitters or other DM devices, or to HDBaseT devices, via CAT5e or Crestron DM-CBL-8G cable^[2]

MC1/LN1 – MC6/LN6: (6) 5-pin 3.5mm detachable terminal blocks;

Comprises (6) balanced microphone/line audio inputs;

Balanced Mic Input Level: -60 to 0 dBV, 1 Vrms maximum;

Balanced Line Input Level: -31 to +11 dBV, 3.7 Vrms maximum;

Unbalanced Line Input Level: -37 to +5 dBV, 1.85 Vrms maximum;

Mic Input Impedance: 3.9k Ohms balanced;

Line Input Impedance: 19k Ohms balanced, 9.5k Ohms unbalanced;

Phantom Power: 48 Volts DC, software enabled/disabled per channel

Connectors – Audio/Video Outputs

SPEAKER OUTPUT 4 Ω /8 Ω L – R: (2) 2-pin 7.62mm 15A detachable terminal blocks;

4-8 Ohm stereo speaker-level audio output;

Wire Size: Terminals accept up to 14 AWG;

Output Power: 20W RMS per channel stereo at 8 Ohms, 4 Ohms tolerant

SPEAKER OUTPUT 70/100V: (1) 2-pin 7.62mm 15A detachable terminal block;

Transformer-isolated 70 or 100 Volt mono speaker-level audio output;

Wire Size: Terminals accept up to 14 AWG;

Output Power: 40W RMS mono at 70 or 100 Volts;

Note: 4 Ω /8 Ω and 70/100V outputs are mutually exclusive

PROG OUT: (1) 5-pin 3.5mm detachable terminal block;

Balanced/unbalanced stereo line-level audio output;

Output Impedance: 200 Ohms balanced, 100 Ohms unbalanced;

Maximum Output Level: 4 Vrms balanced, 2 Vrms unbalanced

AUX OUT 1 – 2: (2) 5-pin 3.5mm detachable terminal blocks;

Balanced/unbalanced stereo line-level audio outputs;

Output Impedance: 200 Ohms balanced, 100 Ohms unbalanced;

Maximum Output Level: 4 Vrms balanced, 2 Vrms unbalanced

HDMI OUTPUT 1 – 2: (2) 19-pin Type A HDMI female, digital video/audio outputs;

Signal Types: HDMI, DVI^[1]

DM OUTPUT 3 – 4: (2) 8-pin RJ45 female, shielded;

DM 8G+ outputs, HDBaseT compliant;

PoDM and PoH PSE (Power Sourcing Equipment) ports^[3];

Connect to DM 8G+ inputs of DM receivers/room controllers or other DM devices, or to HDBaseT devices, via CAT5e or Crestron DM-CBL-8G cable^[2]

Connectors – Control & Power

IR/SERIAL OUT 1 – 4: (4) 2-pin 3.5mm detachable terminal blocks;

IR/Serial output ports;

IR output up to 1.2 MHz;

1-way serial TTL/RS-232 (0-5 Volts) up to 115.2k baud

IR IN: (1) 3-pin 3.5mm detachable terminal block

For connection of the CNXRMIIRD IR Receiver^[4];

Allows control from IR wireless remotes using RC-5 command set

INPUT 1 – 4: (1) 5-pin 3.5mm detachable terminal block;

Comprises (4) programmable digital inputs;

Input Voltage Range: 0 to 24 Volts DC, referenced to GND;

Logic Threshold: 2.5 Volts DC nominal with 1 Volt hysteresis band;
Input Impedance: 10k Ohms at >5 Volts, 1M Ohms at <5 Volts;
Pull-up Resistor: 2.2k Ohms per input

RELAY 1 – 4: (1) 8-pin 3.5mm detachable terminal block;
Comprises (4) normally open, isolated relays;
Rated 1 Amp, 30 Volts AC/DC;
MOV arc suppression across contacts

COM A – B: (2) DB9 male, bidirectional RS-232 ports;
Up to 115.2k baud, hardware and software handshaking support

NET: (4) 4-pin 3.5mm detachable terminal blocks;
Cresnet Master ports, paralleled;
Available Cresnet Power: 30 Watts

SERVICE: (1) USB Type B female, for factory use only

PoDM 48VDC IN: (1) 4-pin snap & lock power jack;
48 Volt DC power input for PoDM power pack^[3];
Enables PoDM and PoH power sourcing

100-240V~4.0A 50/60Hz: (1) IEC 60320 C14 main power inlet;
Mates with removable power cord, included

G: (1) 6-32 screw, chassis ground lug

LAN: (1) 8-wire RJ45 female;
10Base-T/100Base-TX/1000Base-T Ethernet port

COMPUTER (front): (1) USB Type B female;
USB computer console port (cable included)

LCD Display

Green LCD alphanumeric, adjustable backlight, 2 lines x 20 characters per line; Displays input/outputs by name, volume levels, setup menus, signal routing, device info, and other system information

Controls & Indicators

NET: (1) yellow LED, indicates Cresnet bus activity

LAN: (1) yellow LED, indicates Ethernet activity

HW-R: (1) recessed miniature pushbutton for hardware reset, reboots the control system

SW-R: (1) recessed miniature pushbutton for software reset, restarts the SIMPL program

POWER: (1) pushbutton and green LED, programmable for system power control

SOFTKEYS: (4) pushbuttons for activation of LCD driven functions and passcode entry

MENU: (1) pushbutton, steps menu back one level

▲, ▼: (2) pushbuttons, scroll up or down through menu and adjust menu parameters

ENTER: (1) pushbutton, executes highlighted menu or value

VOLUME: (1) continuous turn rotary encoder, adjusts menu parameters, defaults to Program audio volume

MUTE: (1) pushbutton and red LED, mutes the Program audio output

ROUTE: (1) pushbutton and red LED, selects ROUTE mode to allow routing changes

VIEW: (1) pushbutton and red LED, selects VIEW mode to view current routing

INFO: (1) pushbutton and red LED, selects INFO mode to view AV and device info

INPUTS 1 – 7: (7) pushbuttons and red LEDs, select input to be routed

OUTPUTS 1 – 4, PROG, AUX 1 – 2: (7) pushbuttons and red LEDs, select output destination(s)

SPEAKER OUTPUTS (rear): (1) 3-position slide switch, selects the amplifier output configuration

DM INPUT 6 – 7 (rear): (4) LEDs, green LEDs indicate DM link status, amber LEDs indicate video and HDCP signal presence, for each respective port

DM INPUT 6 – 7 PoDM (rear): (2) green LEDs, indicate upstream device is drawing power over DM for each respective port

DM OUTPUT 3 – 4 (rear): (4) LEDs, green LEDs indicate DM link status, amber LEDs indicate video and HDCP signal presence, for each respective port

DM OUTPUT 3 – 4 PoDM (rear): (2) green LEDs, indicate downstream device is drawing power over DM for each respective port

LAN (rear): (2) LEDs, bi-color LED (left) indicates Ethernet speed and activity, green LED (right) indicates Ethernet link status

Power Requirements

Main Power: 4 Amps @ 100-240 Volts AC, 50/60 Hz

Available Cresnet Power: 30 Watts

Power over DM (PoDM): PoDM PSE (Power Sourcing Equipment), supplies power to PoDM Powered Devices^[3]

Power over HDBaseT (PoH): PoH PSE (Power Sourcing Equipment), supplies power to PoH Powered Devices^[3]

PoDM Power Pack: 1.875 Amp @ 48 Volts (100-240 Volts AC, 50/60 Hz power pack, model PW-4818DU sold separately)

Environmental

Temperature: 41° to 104°F (5° to 40°C)

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 277 BTU/hr

Enclosure

Chassis: Metal, black finish, fan-cooled, vented sides

Front Panel: Metal, black finish with polycarbonate label overlay

Mounting: Freestanding or 3U 19-inch rack-mountable (adhesive feet and rack ears included)

Dimensions

Height: 5.20 in (133 mm) without feet

Width: 17.28 in (439 mm);

19.00 in (483 mm) with rack ears

Depth: 16.31 in (415 mm)

Weight

22 lb (9.9 kg)

MODELS & ACCESSORIES

Available Models

DMPS-300-C-AEC: DigitalMedia™ Presentation System 300 w/Acoustic Echo Cancellation

Available Accessories

AM-100: AirMedia™ Presentation Gateway
PW-4818DU: 90W PoDM Power Pack for DMPS
DM-TX1-4K-C-1G: Wall Plate 4K DigitalMedia 8G+® Transmitter
DM-TX-200-C-2G: Wall Plate DigitalMedia 8G+® Transmitter 200
DM-TX-201-C: DigitalMedia 8G+® Transmitter 201
DM-TX-401-C: DigitalMedia 8G+® Transmitter 401
DM-RX1-4K-C-1G: Wall Plate 4K DigitalMedia 8G+® Receiver
DM-RMC-4K-100-C: 4K DigitalMedia 8G+® Receiver & Room Controller 100
DM-RMC-200-C: DigitalMedia 8G+® Receiver & Room Controller 200
DM-RMC-SCALER-C: DigitalMedia 8G+® Receiver & Room Controller w/Scaler
DM-RMC-4K-SCALER-C: 4K DigitalMedia 8G+® Receiver & Room Controller w/Scaler
DM-RMC-4K-SCALER-C-DSP: 4K DigitalMedia 8G+® Receiver & Room Controller w/Scaler & Downmixing
HD-SCALER: High-Definition Video Scaler
AMP-2210S: 2x210W Commercial Power Amplifier, 4/8Ω
AMP-3210S: 3x210W Commercial Power Amplifier, 4/8Ω
AMP-2210T: 2x210W Commercial Power Amplifier, 4/8Ω or 70/100V
AMP-3210T: 3x210W Commercial Power Amplifier, 4/8Ω or 70/100V
AMP-2210HT: 2x210W Commercial Power Amplifier, 4/8Ω or High-Power 70V
Crestron® App: Control App for Apple® iOS® & Android™
XPanel: Crestron Control® for Computers
Fusion EM®: Energy Management Software
Fusion RV®: Remote Asset Management Software
RoomView® Express: Remote Help Desk and Resource Management Software
CSP-LIR-USB: IR Learner
CNSP-XX: Custom Serial Interface Cable
IRP2: IR Emitter Probe w/Terminal Block Connector
CNXRMIRD: IR Receiver
DM-CBL-8G-NP: DigitalMedia 8G™ Cable, non-plenum
DM-CBL-8G-P: DigitalMedia 8G™ Cable, plenum
DM-8G-CONN: Connector for DM-CBL-8G
DM-8G-CRIMP: Crimping Tool for DM-8G-CONN
DM-8G-CONN-WG: Connector with Wire Guide for DM-CBL-8G
DM-8G-CRIMP-WG: Crimping Tool for DM-8G-CONN-WG
CRESNET-NP: Cresnet® Control Cable, non-plenum
CRESNET-P: Cresnet® Control Cable, plenum
CRESNET-HP-NP: Cresnet® “High-Power” Control Cable, non-plenum
CBL Series: Crestron® Certified Interface Cables
MP-WP Series: Media Presentation Wall Plates
MPI-WP Series: Media Presentation Wall Plates - International Version
USB-EXT-DM: USB over Ethernet Extender with Routing

Notes:

1. HDMI requires an appropriate adapter or interface cable to accommodate a DVI or DisplayPort Multimode signal. [CBL-HD-DVI](#) interface cables available separately.
2. For DM 8G+ or HDBaseT wiring, use Crestron [DM-CBL-8G](#) DigitalMedia 8G Cable, Crestron [DM-CBL](#) DigitalMedia Cable, Crestron [DM-CBL-D](#) DigitalMedia D Cable, or third-party CAT5e (or better) UTP or STP. Maximum wire length for DM 8G+ is 330 ft (100 m) between devices. Shielded cable and connectors are recommended to safeguard against unpredictable environmental electrical noise which may impact performance at resolutions above 1080p. Refer to the [Crestron DigitalMedia Design Guide, Doc. #4546](#) for complete system design guidelines. DM 8G+ is compatible with HDBaseT Alliance specifications for connecting to HDBaseT compliant equipment. All wire and cables sold separately.
3. Supplying Power over DM (PoDM) or Power over HDBaseT (PoH) requires external power pack, model [PW-4818DU](#), sold separately.
4. Item(s) sold separately.
5. The RGB inputs can accept component, composite, and S-Video signals via direct interface to Crestron MPS Series products, or through an appropriate adapter (not included). Input sync detection is not provided for composite or S-Video signal types through the RGB connection.
6. Deep Color and 3D video signals are only supported via HDMI inputs 1 and 2, and DM inputs 6 and 7.
7. When a digital audio input (HDMI, DM, or SPDIF) is routed to an HDMI or DM output, that output is put in “pass-through” mode so that the digital input is the only signal that passes to that output and the audio controls on that output have no effect.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Crestron, the Crestron logo, AirMedia, Auto-Locking, Cresnet, Crestron Control, Crestron Fusion, Crestron Toolbox, DigitalMedia, DigitalMedia 8G, DigitalMedia 8G+, DM, DM 8G+, Fusion EM, Fusion RV, QuickSwitch HD, RoomView, and Smart Graphics are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. Apple, iPad, and iPhone are either trademarks or registered trademarks of Apple Inc. in the United States and/or other countries. Blu-ray is either a trademark or registered trademark of the Blu-ray Disc Association in the United States and/or other countries. IOS is either a trademark or registered trademark of Cisco Technology, Inc. in the United States and/or other countries. Dolby and Dolby Digital are either trademarks or registered trademarks of Dolby Laboratories in the United States and/or other countries. DTS is either a trademark or registered trademark of DTS, Inc. in the United States and/or other countries. Android is either a trademark or registered trademark of Google Inc. in the United States and/or other countries. HDBaseT and the HDBaseT Alliance logo are either trademarks or registered trademarks of the HDBaseT Alliance in the United States and/or other countries. HDMI and the HDMI Logo are either trademarks or registered trademarks of HDMI Licensing LLC in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography. Specifications are subject to change without notice. ©2015 Crestron Electronics, Inc.

